

CLAIMS

We claim:

1. A packaged pre-moistened wet wipe comprising a web of nonwoven fibers bonded with a water soluble and/or dispersible polymeric binder in contact with an aqueous composition which is substantially free of boric acid and its derivatives and contains a sufficient amount of a water-binding compound to prevent the dissolution/redispersion of the water soluble/dispersible components of the binder composition while imbuing the nonwoven with a wet tensile strength that is at least as great as that afforded by a 4 wt% boric acid solution.

2. The wet wipe of Claim 1 in which the aqueous composition comprises 40-99 wt% water.

3. The wet wipe of Claim 1 in which the aqueous composition comprises less than 0.05 wt% boric acid or its derivatives.

4. The wet wipe of Claim 1 in which the water-binding compound is an ammonium, monovalent metal or polyvalent metal salt of an inorganic or organic acid.

5. The wet wipe of Claim 1 in which the water-binding compound is an ammonium, alkali metal or alkaline earth metal salt of carbonic acid, citric acid, acetic acid, succinic acid, phosphoric acid, sulfuric acid or hydrochloric acid.

6. The wet wipe of Claim 1 in which the water-binding compound is an ammonium, sodium or potassium salt of sulfuric acid.

7. The wet wipe of Claim 1 in which the water-binding compound is a humectant or a preservative.

8. The wet wipe of Claim 1 in which the water-binding compound is disodium cocoamphodiacetate or potassium sorbate.

9. The wet wipe of Claim 1 in which the polymeric binder comprises a polyvinyl alcohol, an aqueous polymer emulsion either stabilized with polyvinyl alcohol as the protective colloid, or an aqueous polymer emulsion containing post-added polyvinyl alcohol, a polyethylene glycol, a polyacrylamide or a polyvinyl pyrrolidone.

10. The wet wipe of Claim 1 in which the polymeric binder comprises a polyvinyl alcohol, an aqueous polymer emulsion either stabilized with polyvinyl alcohol as the protective colloid, an aqueous polymer emulsion containing post-added polyvinyl alcohol, or a combination thereof.

11. In a packaged pre-moistened wet wipe comprising a web of nonwoven fibers bonded with a polyvinyl alcohol-containing polymeric binder in contact with an aqueous lotion composition comprising in water one or more of an alcohol, a preservative, a cleansing agent, a fragrance, a moisturizer, a humectant, a surfactant and a softener, the improvement which comprises an aqueous lotion composition which contains less than 0.05 wt% boric acid and its derivatives and contains 3 to about 100 wt%, based on lotion solids, of a water-binding compound to prevent the dissolution/redispersion of the polyvinyl alcohol-containing polymeric binder while imbuing the nonwoven with a wet tensile strength that is at least as great as that afforded by a 4 wt% boric acid solution.

12. The wet wipe of Claim 11 in which the polymeric binder comprises a polyvinyl alcohol, an aqueous polymer emulsion either stabilized with polyvinyl alcohol as the protective colloid, an aqueous polymer emulsion containing post-added polyvinyl alcohol, or a combination thereof.

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13. The wet wipe of Claim 12 in which the water-binding compound is an ammonium, monovalent metal or polyvalent metal salt of an inorganic or organic acid.

14. The wet wipe of Claim 12 in which the water-binding compound is an ammonium, alkali metal or alkaline earth metal salt of carbonic acid, citric acid, acetic acid, succinic acid, phosphoric acid, sulfuric acid or hydrochloric acid.

15. The wet wipe of Claim 12 in which the water-binding compound is an ammonium, sodium or potassium salt of sulfuric acid.

16. The wet wipe of Claim 12 in which the water-binding compound is sodium sulfate.

17. The wet wipe of Claim 12 in which the water-binding compound comprises 5-95 wt% of the lotion solids.

18. The wet wipe of Claim 13 in which the water-binding compound comprises 5-95 wt% of the lotion solids.

19. The wet wipe of Claim 15 in which the water-binding compound comprises 5-95 wt% of the lotion solids.

20. The wet wipe of Claim 16 in which the water-binding compound comprises 5-95 wt% of the lotion solids.

- 5 21. In an aqueous lotion solution for wetting a nonwoven wipe bonded with a polyvinyl alcohol-containing polymeric binder, the improvement which comprises an aqueous lotion composition which is substantially free of boric acid and contains a sufficient amount of a water-binding compound to prevent the dissolution/redispersion of the polyvinyl alcohol-containing polymeric binder while imbuing the nonwoven with a wet
- 10 tensile strength that is at least as great as that afforded by a 4 wt% boric acid solution.

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